IN THE CLAIMS

1. (Currently Amended) A method for modulating the morphology of softwood ~~pulp~~ fibers comprising the steps of:

subjecting pulp containing softwood ~~the pulp~~ fibers to a solution containing transitional metal ions at a concentration from about 0.002% to about 0.1% by weight based on pulp and a peroxide ~~a metal ion-activated peroxide treatment carried out~~ at a pH ~~of~~ between about 1 and about 9 for a time of from about 10 minutes to about 10 hours at a temperature ~~of~~ from about 40 to 120°C, and

subjecting the treated ~~pulp~~ fibers to a refining treatment to form refined paper making ~~pulp~~ fibers,

wherein said method reduces fiber suspension viscosity.

2. Canceled

3. (Currently Amended) The method of Claim 1 wherein said transitional metal ~~ion is~~ ions are selected from iron, copper and combinations thereof.

4. (Original) The method of Claim 1 wherein said pH is between about 3 and about 7.

5.-6. Canceled

7. (Currently Amended) The method of Claim 1 wherein said peroxide is present in ~~with~~ said solution at a concentration ~~of~~ between about 0.2% and about 5% based on pulp.

8. Canceled

9. (Currently Amended) The method of Claim 1 wherein said softwood ~~pulp~~ fibers are subjected to said solution for a time sufficient to substantially act on at least the cellulose and hemi-cellulose of the pulp, causing oxidation and oxidative degradation of cellulose fibers.

10.-19. Canceled

20. (Currently Amended) The method of claim 1 wherein said softwood ~~pulp~~ fibers are Kraft ~~pulp~~ fibers.

21. (Currently Amended) The method of claim 1 wherein said softwood ~~pulp~~ fibers are Southern Pine ~~pulp~~ fibers.

22. (Currently Amended) The method of claim 1 wherein said softwood ~~pulp~~ fibers are bleached ~~pulp~~ fibers.

23. (Currently Amended) The method of claim 1 wherein said softwood ~~pulp~~ fibers are bleached Kraft ~~pulp~~ fibers.

24. (Currently Amended) The method of claim 1 wherein said refined paper making ~~pulp~~ fibers exhibit a substantially shorter fiber length and distribution and enhanced fiber collapsibility than prior to said refining treatment.

25. (Currently Amended) The method of claim 1 wherein said refined paper making ~~pulp~~ fibers exhibit paper making properties substantially functionally equivalent to hardwood pulp papermaking properties.

26. (Currently Amended) The method of claim 1 wherein said subjecting step comprises treating said pulp containing softwood fibers with said ~~a~~ composition comprising peroxide and transitional metal ions.

27. (Currently Amended) The method of claim 4 ~~1~~ wherein said transitional metal ions are selected from the group consisting of iron, copper~~, cobalt or a combination of two or more~~ and combinations thereof.

28. (Currently Amended) The method of Claim 1, wherein said pH is ~~comprising subjecting the pulp fibers to a metal ion-activated peroxide treatment carried out at a pH~~ between about 1 and about 7 ~~at a temperature of from 40 to 120°C for a time period of from 10 minutes to 600 minutes; and~~

~~subjecting the pulp fibers to a refining treatment to form refined paper making pulp fibers~~.

29. (Currently Amended) The method according to Claim 1, further comprising adding a transitional metal ion to peroxide.

30. (Currently Amended) The method according to Claim 29, further comprising: adding a transitional metal ion to peroxide in the presence of the pulp.

31. (Currently Amended) The method according to Claim 30, further comprising: adding between about 0.002% and about 0.1% of a transitional metal ion based on pulp to peroxide in the presence of the pulp.

32. (Currently Amended) The method according to Claim 29, further comprising: adding between about 0.002% and about 0.1% of a transitional metal ion based on pulp.

33. (Currently Amended) A pulp comprising between about 50% and 90% hardwood pulp and the remainder being softwood pulp which has been subjected to the method according to claim 1 ~~32~~.

34. (Currently Amended) A method for modulating the morphology of softwood ~~pulp~~ fibers, comprising:

adding a transitional metal ion at a concentration from about 0.002% to about 0.1% by weight based on pulp ~~source~~ to a solution comprising peroxide to form a metal-ion activated peroxide;

contacting ~~the~~ pulp including softwood fibers with the metal ion-activated peroxide at a pH ~~of~~ between about 1 and about 9 for a time of from about 10 minutes to about 10 hours at a temperature ~~of~~ from about 40 to 120°C, and

refining the treated ~~pulp~~ fibers to form fibers having a modified morphology,

wherein said method reduces fiber suspension viscosity.

35. Canceled

36. (Currently Amended) The method according to Claim 34, wherein the transitional metal ion ~~source~~ is a metal salt.

37. Canceled

38. (Currently Amended) The method according to Claim 34, wherein said pH is ~~comprising~~

~~contacting the pulp fibers with the metal ion-activated peroxide at a pH of~~ between about 1 and about 7 ~~at a temperature of from 40 to 120 °C for a time period of from 10 minutes to 600 minutes~~.

39. (New) The method according to Claim 1, wherein said pulp further comprises hardwood fibers.

40. (New) The method according to Claim 34, wherein said transitional metal ion is selected from iron, copper and mixtures thereof.

41. (New) The method according to Claim 40, wherein said pulp comprises between about 50% and about 90% softwood fibers and between about 10% and about 50% hardwood fibers.